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Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: L2 same 10

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DATE: Tuesday, December 16, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=OR			
L3	L2 same 10	5	L3
L2	L1 same diameter	20	L2
L1	microarray same micron	40	L1

END OF SEARCH HISTORY

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=> s microarray (p)micron
L1          11 MICROARRAY (P) MICRON

=> s l1 (p)diameter
L2           0 L1 (P) DIAMETER

=> s l1 (p)ten
L3           0 L1 (P) TEN

=> s l1 (p)10
L4           3 L1 (P) 10

=> duplicate remove l4
PROCESSING COMPLETED FOR L4
L5           3 DUPLICATE REMOVE L4 (0 DUPLICATES REMOVED)

=> d bib ab l5 1-3

L5   ANSWER 1 OF 3     MEDLINE on STN
AN   2001445849     MEDLINE
DN   21374421   PubMed ID: 11481467
TI   DNA microarray reveals changes in gene expression of shear stressed human
     umbilical vein endothelial cells.
AU   McCormick S M; Eskin S G; McIntire L V; Teng C L; Lu C M; Russell C G;
     Chittur K K
CS   Department of Bioengineering, University of Illinois, Chicago, IL 60607,
     USA.
NC   HL18672 (NHLBI)
SO   PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
     AMERICA, (2001 Jul 31) 98 (16) 8955-60.
     Journal code: 7505876. ISSN: 0027-8424.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals; Space Life Sciences
EM   200108
ED   Entered STN: 20010813
     Last Updated on STN: 20010903
     Entered Medline: 20010830
AB   Using DNA microarray screening (GeneFilter 211, Research
     Genetics, Huntsville, AL) of mRNA from primary human umbilical vein
     endothelial cells (HUVEC), we identified 52 genes with significantly
     altered expression under shear stress [25 dynes/cm(2) for 6 or 24 h (1
     dyne = 10 microN), compared with matched stationary
     controls]; including several genes not heretofore recognized to be shear
     stress responsive.  We examined mRNA expression of nine genes by Northern
     blot analysis, which confirmed the results obtained on DNA microarrays.
     Thirty-two genes were up-regulated (by more than 2-fold), the most
     enhanced being cytochromes P450 1A1 and 1B1, zinc finger protein EZF/GKLF,
     glucocorticoid-induced leucine zipper protein, argininosuccinate synthase,
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and human prostaglandin transporter. Most dramatically decreased (by more than 2-fold) were connective tissue growth factor, endothelin-1, monocyte chemotactic protein-1, and spermidine/spermine N1-acetyltransferase. The changes observed suggest several potential mechanisms for increased NO production under shear stress in endothelial cells.

L5 ANSWER 2 OF 3 MEDLINE on STN
AN 2001355750 MEDLINE
DN 21237280 PubMed ID: 11338608
TI On-demand droplet spotter for preparing pico- to femtoliter droplets on surfaces.
AU Yogi O; Kawakami T; Yamauchi M; Ye J Y; Ishikawa M
CS Joint Research Center for Atom Technology (JRCAT), Angstrom Technology Partnership (ATP), 1-1-4 Higashi, Tsukuba, Ibaraki 305-0046, Japan.
SO ANALYTICAL CHEMISTRY, (2001 Apr 15) 73 (8) 1896-902.
Journal code: 0370536. ISSN: 0003-2700.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
EM 200106
ED Entered STN: 20010625
Last Updated on STN: 20010625
Entered Medline: 20010621
AB A droplet spotter for on-demand generation of pico- to femtoliter droplets was developed to meet the requirement for high-density spotting of chemicals on a surface. Our droplet spotter involves applying a approximately 1000-V and approximately **10**-ms pulse voltage to the tip of a capillary tube (o.d. approximately 18 microns; i.d. approximately 11 microns) supplied with water or a dye solution. The capability of the spotter was demonstrated by preparing a **microarray** of dye molecules. The **microarray** was prepared by spotting approximately 30-fL droplets of a dye solution on a surface at the density of one spot per 20 x 20 **micron** 2.

L5 ANSWER 3 OF 3 MEDLINE on STN
AN 2001124795 MEDLINE
DN 21041235 PubMed ID: 11197481
TI Surface immobilized biochemical macromolecules studied by scanning Kelvin microprobe.
AU Cheran L E; McGovern M E; Thompson M
CS Department of Chemistry, University of Toronto, 80 St. George Street, Toronto, Ontario, Canada M5S 3H6.
SO FARADAY DISCUSSIONS, (2000) (116) 23-34; discussion 67-75.
Journal code: 9212301. ISSN: 1359-6640.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200102
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010222
AB The measurement of work function is a particularly effective method for the characterization of surfaces because of the sensitivity of the parameter to interfacial structure, modification and overall chemistry. Accordingly, techniques for the analysis of work function offer a powerful tool for monitoring surface chemical changes, especially for situations involving the immobilization of new moieties at the interface. In the present paper, we describe the performance of a new, modified scanning Kelvin microprobe which is capable of the tandem measurement of contact potential and surface topography with resolutions of 1 mV and **10** nm, respectively. The lateral resolution is 1 **micron**. The instrument has been applied to the study of substrates modified by the

attachment of biochemical macromolecules such as oligonucleotides and DNA. This preliminary work confirms the great potential of the technique in the study of biocompatibility, macromolecular structure and **microarray** devices.

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=> d his

     (FILE 'HOME' ENTERED AT 14:48:12 ON 16 DEC 2003)

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 14:48:30 ON 16 DEC 2003
L1            11 S MICROARRAY (P)MICRON
L2             0 S L1 (P)DIAMETER
L3             0 S L1 (P)TEN
L4             3 S L1 (P)10
L5             3 DUPLICATE REMOVE L4 (0 DUPLICATES REMOVED)

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